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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/464,253 12/16/99 CENTOFANTI

L 16715-0121

EXAMINER

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IM52/0618

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ART UNIT

PAPER NUMBER

1754  
DATE MAILED:

06/18/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/464,253

Applicant(s)

CENTOFANTI ET AL.

Examiner

Edward M. Johnson

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

**DETAILED ACTION**

***Response to Amendment***

1. This office action is in response to Applicant's amendment filed on 4/30/01. The specification and claims 9-10, 12, 14, 18, and 28 have been amended by Applicant.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Allen 5,551,976.

Regarding claims 1, 12, and 22, Allen '976 discloses a method for the disposal of radioactive waste (see column 1, lines 12-16) comprising: admixing a polymer (see column 5, lines 14-20) with the waste material to encapsulate the waste within the polymer (see column 4, lines 7-13) wherein the polymer prevents radiation from passing through (see column 4, lines 60-62), further mixing the polymer-waste admixture with a shielding material wherein the polymer-waste mixture is incorporated within the shielding material (see abstract and column 2, lines

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50-55), and forming the final mixture into solidified, round geometric shapes (which inherently have a high volume per unit surface area compared to thin sheets or rods) to further improve overall performance (see column 3, lines 63-67).

Regarding claims 2, 13 and 23, Allen '976 discloses the radioactive material as radon (see column 9, line 67).

Regarding claims 3, 19, and 24, Allen '976 discloses the polymer selected from mineral oil, charcoal, activated carbon, silicates, sulfur, organic polymers or inorganic polymers (see column 5, lines 14-20; column 6, lines 34-56).

Regarding claims 4, 20, and 25, Allen '976 discloses the polymer added in an amount from about 0.1 to about 30 percent by weight based on the amount of waste material (see column 6, lines 14-33).

Regarding claims 5, 11, 17, 21, and 29, Allen '976 discloses disposal by sealing the polymer/waste material in molded forms, such as blocks stored in landfills (see column 2, lines 2-3).

Regarding claims 6, 7, 15, 16, 26 Allen '976 discloses mixing the polymer and waste material with a shielding material such that the polymer-waste material is incorporated with the shielding material, by mixing it with concrete (see abstract and column 2, lines 50-67).

Regarding claims 8 and 27, Allen '976 discloses the amount of shielding material in a ratio from about 2 to 1 (see column 6, lines 24-33; up to about 60 percent concrete).

Regarding claims 9, 10, 14, and 28, Allen '976 discloses a geometric shape with a high volume per unit surface area selected from a substantially spherical or cubic shape to further improve overall performance (see column 3, lines 63-67).

Regarding claim 18, Allen '976 discloses mixing the polymer with the waste material to encapsulate the radioactive material to prevent radiation from passing through (see column 4, lines 7-13 and column 2, lines 57-60).

#### ***Response to Arguments***

Applicant's arguments filed 4/30/01 have been fully considered but they are not persuasive.

Examiner has withdrawn the objection and rejections under 35 USC 112(2) in view of Applicant's amendments.

Applicant's argument, that a claim is anticipated only if each and every element as set forth in the claim is disclosed either expressly or inherently in a single prior art reference, is not persuasive. Examiner takes the position that Allen discloses the disposal, containment, and stabilization of radioactive waste (see column 1, lines 20-25), which would inherently include the prevention of alpha particle radiation

from the disclosed radioactive waste. Allen also specifically discloses the addition of polymeric matrix components as superplasticizer or waste (see column 3, lines 10-15). Furthermore, Examiner notes that both Allen and Applicant's claims call for "mixing" or "admixing" the waste with the containment material. But to the extent that Applicant claims a "barrier" rather than an "immobilization", Allen inherently teaches the use of a polymer barrier in his disclosure of a filler having radioactive toxic waste contaminants and a superplasticizer.

Applicant's argument that since claims 2-11 and 23-29 depend from claims 1 and 22 respectively, and recite additional claim features, claims 2-11 and 23-29 are patentable, is not persuasive. Claims 1 and 22 are not allowed.

Applicant's argument that the Allen patent states that the processing, handling, chemical resistance, and overall performance of solidified waste prepared by the method disclosed in Allen can be further improved by the control of aggregate gradation and shape, is not persuasive. Examiner continues to take the position that Allen discloses a geometric shape with a high volume per unit surface area selected from a spherical or cubic shape by suggesting round and angular shapes (see column 3, lines 63-67). Also, the suggestion of these shapes would

reasonably be taken to contain the amount of radiation emitted from the waste because the invention itself is for containment of radioactive waste and Allen discloses the shapes to maximize "overall performance" (see column 3, line 64).

**Conclusion**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ  
June 6, 2001

  
STEVEN P. GRIFFIN  
SUPERVISORY PATENT EXAMINER  
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